

USGS 2018 NSHM Update Workshop

March 7-8th, 2018: 9:00 am - 4:30 pm

**Risk Management Solutions Headquarters
Amenities Building (7677 Gateway Blvd., Newark, CA 94560)**

Agenda

Day 1: Wednesday, March 7th, 2018

9:00 am - 9:30 am Welcome, Overview and Motivation for the 2018 NSHM Update
(*M. Petersen, N. Luco, and S. Rezaeian*)

9:30 am - 3:15 pm Update of the CEUS GMMs in the 2018 NSHM

- Overview of the NGA-East Models Available (*M. Petersen*) (**9:30 - 10:00**)
- Overview of the NGA-East Project (*C. Goulet*) (**10:00 - 10:30**)
- Overview and Updates to the NGA-East Seed GMMs
(*S. Pezeshk and V. Graizer*) (**10:30 - 11:00**)
- Concerns about the NGA-East GMMs (*A. Franke*) (**11:00 - 11:15**)

Break (11:15 am - 11:30 am)

- Proposed 2018 NSHM CEUS GMMs
(*S. Rezaeian, D. McNamara, and M. Petersen*) (**11:30 - 12:30**)

Lunch (12:30 pm - 1:00 pm)

- Proposed 2018 NSHM CEUS GMMs (cont.) (*A. Shumway*) (**1:00 - 1:30**)
- NGA-East Site Amplification Model (*J. Stewart*) (**1:30 - 2:00**)
- Implementation of the NGA-East Amplification Model (*E. Thompson*) (**2:00 - 2:30**)

Break (2:30 pm - 2:45 pm)

2:45 pm - 3:30 pm Consensus on the Update of the CEUS GMMs in the 2018 NSHM
(*Open Discussion*)

3:30 pm - 4:30 pm Additional 2018 NSHM Modeling Details and Discussion (*P. Powers*)

4:30 pm Adjourn

Day 2: Thursday, March 8th, 2018

9:00 am - 9:05 am Welcome, Brief Overview and Motivation for the 2018 NSHM Update
(*M. Petersen*)

9:05 am - 10:00 am Motivation and Issues with Incorporating Basin Models

- User Needs (*S. Rezaeian*) (**9:05 - 9:15**)
- Southern California Earthquake Center (SCEC) Utilization of Ground Motion Simulations (UGMS) Committee (*C.B. Crouse*) (**9:15 - 9:35**)
- Objectives (*N. Luco*) (**9:35 - 9:45**)
- Overview of Methods (*M. Petersen*) (**9:45 - 10:15**)
- Overview of Amplification for Basins Deeper than 3 km (*A. Frankel*) (**10:15-10:30**)

Break (10:30 am - 10:45 am)

10:45 am - 12:30 pm Basin Effects in Empirical and Simulated Ground Motions

- How to Use/Apply Basin Effects
 - Basin Effects in NGA-West2 Equation CB14 (*K. Campbell*) (**10:45-11:15**)
 - Application of Basins in Subduction Models (*G. Atkinson*) (**11:15-11:45**)
- Looking Toward the 2020 NSHM Update: What Models Should be Used?
 - M9 Project (*A. Frankel*) (**11:45 - 12:10**)
 - Use of 3D Simulations in Future Updates of the NSHM (*M. Moschetti*) (**12:10 - 12:30**)

Lunch (12:30 - 1:00 pm)

1:00 pm - 2:00 pm Basin Characterization and Sensitivity Studies

- Published Seismic Velocity Models Available (*O. Boyd*) (**1:00 - 1:20**)
- Combining Basin Depth Estimates with an Assumed Vs30 (*E. Thompson*) (**1:20 – 1:30**)
- Sensitivity Studies (*A. Shumway*) (**1:30 - 2:00**)

2:00 pm - 3:00 pm Consensus on Basin Effects in the 2018 NSHM
(*Open Discussion*)

Break (3:00 pm - 3:15 pm)

3:15 pm - 3:45pm Consensus on Basin Effects in the 2018 NSHM (cont.)
(*Open Discussion*)

3:45 pm - 4:30 pm Update of the Smooth Seismicity Model (Seismicity Catalog) for the 2018 NSHM (*C. Mueller*)

4:30 pm Adjourn

Note: We will have a 15 break in the morning and afternoon, and a half hour lunch at 12:30 pm each day. Sandwiches and refreshments will be provided for lunch each day, courtesy of RMS.